Army Regulation 70–75

Research, Development and Acquisition

Survivability of Army Personnel and Materiel

Headquarters
Department of the Army
Washington, DC
10 January 1995

UNCLASSIFIED

SUMMARY of CHANGE

AR 70–75
Survivability of Army Personnel and Materiel

This regulation--

- Consolidates and supersedes Nuclear Survivability of Army Materiel, 1 October 1984, and AR 70-71 Nuclear, Biological, and Chemical Contamination Survivability of Army Materiel, 1 April 1984.

- Implements Part 6 F of Department of Defense Instruction (DODI) 5000.2 Defense Acquisition Management Policies and Procedures and

- Provides policies, responsibilities, and procedures for ensuring that survivability of Army personnel and materiel are addressed in the materiel acquisition process.

Headquarters
Department of the Army
Washington, DC
10 January 1995

*Army Regulation 70–75

Effective 10 February 1995

Research, Development and Acquisition

Survivability of Army Personnel and Materiel

By Order of the Secretary of the Army:

GORDON R. SULLIVAN
General, United States Army
Chief of Staff

Official:

MILTON H. HAMILTON
Administrative Assistant to the Secretary of the Army

History. This printing publishes a new Army regulation.

Summary. This regulation implements Department of Defense Instruction (DODI) 5000.2 Part 6 F "Defense Acquisition Management Policies and Procedures". It provides policies, responsibilities, and procedures for ensuring that survivability of Army personnel and materiel are addressed in the materiel acquisition process.

Applicability. This regulation applies to the Active Army, the Army National Guard, and the U.S. Army Reserve. It applies to personnel conducting research, development, or acquisition of materiel items and systems. It also applies to weapon systems, command, control, communications, and intelligence and electronic warfare systems, special access programs, and computer resources integral to those items or systems for the Army under the provisions of AR 70–1.

Proponent and exception authority. The proponent for this regulation is the Assistant Secretary of the Army (ASA) for Research, Development and Acquisition (RDA). The ASA (RDA) has the authority to approve exceptions to this regulation that are consistent with controlling law and regulation. Proponents may delegate this approval authority, in writing, to a division chief under their supervision within the proponent agency, who holds the grade of colonel or the civilian equivalent.

Army management control process. This regulation contains management control provisions in accordance with AR 11–2. It also identifies key management controls and an evaluation method. The key controls and evaluation method are listed in appendix B.

Supplementation. Supplementation of this regulation and establishment of command and local forms are prohibited without prior approval from the Assistant Secretary, Army Research, Development, and Acquisition, 103 Army Pentagon Washington DC 20310–0103.

Interim changes. Interim changes to this regulation are not official unless they are authenticated by the Administrative Assistant to the Secretary of the Army. Users will destroy interim changes on their expiration date unless sooner superseded or rescinded.

Suggested Improvements. Users of this regulation are invited to send comments and suggested recommended improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Assistant Secretary, Army Research, Development, and Acquisition, 103 Army Pentagon Washington DC 20310–0103.

Distribution. Distribution of this publication is made in accordance with the requirements of DA Form 12–09–E, block number 5441, intended for command level D for the Active Army, the Army National Guard, and the U.S. Army Reserve.

Contents (Listed by paragraph and page number)

*This regulation supercedes AR 70–60 1 October 1984 and AR 70–71 1 April 1984.

Contents—Continued

Chapter 1
Introduction

1–1. Purpose
This regulation implements Part 6 F, Survivability, of DODI 5000.2 within the Army. It prescribes survivability policies, responsibilities, and procedures for the sustainment of operational effectiveness and warfighting capability through the life cycle of survivable systems, personnel, equipment, and support. The term survivability includes both soldier and equipment unless otherwise specified.

1–2. References
Required and related forms are listed in appendix A.

1–3. Explanations of abbreviations and terms
Abbreviations and special terms used in this regulation are explained in the glossary.

1–4. Exemptions
This regulation does not apply to personnel conducting acquisitions of—

a. Information systems in the sustaining base Information Mission Area (IMA), software , hardware, services, and supplies which are acquired under AR 25–1 or AR 25–3.

b. National Foreign Intelligence Program capabilities, such as the Consolidated Cryptologic Program and the Department of Defense Intelligence Information System.

c. Base level commercial equipment.

d. Stand alone training devices, test instrumentation, and training and threat simulators.

e. Textile uniforms and equipment and other materiel which are resistant to decontamination by individual decontamination kits until they can be exchanged, but which inherently cannot be decontaminated for continued reuse, based on safety requirements.

1–5. Policy
a. The survivability of personnel and materiel is an essential requirement during the life cycle of systems that must perform critical functions, whether they are developmental materiel, nondevelopmental items (NDIs), or materiel modifications. Survivability will be addressed in acquisition strategies for all Army materiel. DODI 5000.2, Part 6, Section F, Attachment 1 provides survivability considerations at milestone decision points. Survivability will be considered during all acquisition phases.

b. The Mission Need Statement (MNS) will define the shortfalls or deficiencies of existing capabilities, the operational environment in which the mission is expected to be accomplished, and the level of desired mission capability in these environments.

c. The System Manpower and Personnel Integration (MANPRINT) Management Plan (SMMP) will identify and track the resolution of soldier survivability concerns throughout the acquisition process. The System Safety Management Plan (SSMP) will similarly identify and track the resolution of safety concerns.

d. The Operational Requirements Document (ORD) incorporates system survivability requirements, identifying survivability thresholds and objectives, and specifies whether or not the need is mission critical. Initial survivability requirements, supported by criteria, are developed by Milestone I and incorporated into the draft ORD. The ORD survivability characteristics should be stated in terms of measurable quantitative parameters. The acquisition program baseline will include survivability characteristics. Critical survivability characteristics and parameters that require test and evaluation (T&E) will be identified and included in the Test and Evaluation Master Plan (TEMP).

e. Analyses of survivability against each threat, to include tradeoff analysis, are done in the context of all threats and balanced across all survivability disciplines to maintain overall mission performance. Fratricide due to the collateral effects of friendly systems is considered a vulnerability. Failure to control fratricide is a safety hazard and will be managed per Army safety risk management requirements as described in AR 385–16. The integrated survivability analysis is maintained for use as a survivability audit trail of requirements, trade-off decisions, and quantitative measures of effectiveness.

f. Survivability features of a system and soldier survivability must be designed to be maintainable throughout the life cycle. Additionally, when the system is modified, the threat changes, or there is a change in the doctrine of system deployment, a survivability review by the combat developer (CBTDEV) and materiel developer (MATDEV) is required.

g. MATDEVs will provide an assessment of the survivability of the system in the anticipated battlefield environment at milestone reviews and in-process reviews (IPRs).

h. Shortfalls in the satisfaction of survivability requirements must be substantiated by the MATDEV, in coordination with the CBTDEV (see AR 70–1), and submitted to the Milestone Decision Authority (MDA) during the milestone review process. Rationale for failure to meet requirements, as well as risk analysis and risk mitigation approaches, is included as part of the substantiation process. Shortfalls which introduce safety hazards must enter the system safety risk management process (see AR 385–16) for resolution or acceptance. A waiver process exists for full-up Live Fire Testing (see AR 73–1). This waiver process does not change the need to meet the survivability requirement.

i. If an item is designated as mission essential or is a critical component of one or more mission essential end items, it will be nuclear, biological, and chemical (NBC) contamination survivable. If this critical item or component is electronic equipment in a nuclear threat environment, at a minimum, it will be survivable to high-altitude electromagnetic pulse. If this critical item or component is electronic equipment in a conventional threat environment, at a minimum, it will be survivable in an electronic attack environment. However, waiver processes exist for nuclear survivability criteria; NBC contamination survivability criteria; and related testing procedures (see AR 15–41). (As stated above, this waiver process does not change the need to meet the survivability requirement.)

j. Critical components of one or more mission essential end items will possess the same level of survivability as the most survivable end item.

Chapter 2
Responsibilities

Section I
Milestone Decision Authorities and Materiel Developers

2–1. Milestone Decision Authorities (MDAs)
(See AR 70–1 for identification of MDAs for the various acquisition categories). The MDA will —

a. Ensure that Army acquisition provides systems that achieve acceptable mission effectiveness in an operational environment.

b. Review the assessment of the survivability of each system at the Army Systems Acquisition Review Council (ASARC) or IPR, and in Cost and Operational Effectiveness Analyses (COEAs) or other economic analyses.

c. Retain approval authority for waivers to survivability requirements, except as specified in AR 15–41 for nuclear and NBC contamination criteria, AR 73–1 for Live Fire Testing, and the Army Insensitive Munitions Plan for insensitive munitions.

2–2. Materiel Developers (MATDEVs)
Program Executive Officers (PEOs) and Direct Reporting Program Managers (PMs) will —

a. Develop and implement a survivability strategy as part of the acquisition strategy for assigned programs. These strategies should use existing Army and Government resources whenever feasible.

b. Provide an assessment and report survivability accomplishments and issues to the MDA as part of the milestone review process.

c. Support the CBTDEV as required in the development of survivability requirements.

d. Provide information on nuclear effects and NBC contamination survivability studies and analyses to the Director, Nuclear and Chemical Survivability Committee (NCSC) Secretariat prior to each milestone decision. Requests for waivers for NBC survivability will be made to the NCSC prior to Milestone II. (See AR 15–41.)

e. Document survivability shortfalls and analyses, providing an audit trail throughout the acquisition life cycle of the item.

f. Ensure appropriate survivability requirements are included in the TEMP, Quality Assurance Plan, Integrated Logistics Support Plan (ILSP), and the Life-Cycle Survivability Maintenance Plan.

Section II
Headquarters, Department of the Army Elements

2–3. Assistant Secretary of the Army (Research, Development and Acquisition) (ASA(RDA))

ASA(RDA) will—

a. Establish and manage Army survivability policy and guidance in Army research, development, and acquisition.

b. Provide technical and funding guidance for the survivability technology base.

c. Represent HQDA on boards and committees concerning materiel survivability matters.

2–4. Assistant Secretary of the Army (Manpower and Reserve Affairs) (ASA(MRA))

The ASA(MRA) will coordinate with ASA(RDA) in support of individual soldier survivability issues.

2–5. Director of Information Systems for Command, Control, Communications, and Computers (DISC4)

The DISC4 will—

a. Provide computer resources survivability oversight, for all systems, and communications survivability for Command, Control, Communications, and Computers (C4) systems.

b. Ensure MATDEVs consider computer resources and communications survivability in their development plans.

2–6. Deputy Chief of Staff for Operations and Plans (DCSOPS)

The DCSOPS will—

a. Establish policies, requirements, guidelines, and priorities which will ensure the development of survivable materiel and enhance individual soldier survivability.

b. Ensure that both system and force level survivability issues, to include requirements and criteria, have been considered in all changes to system threats, mission, or hardware.

c. Represent HQDA on interdepartmental working groups, boards, and meetings on nuclear and NBC contamination survivability policy and criteria.

d. Provide a chairman for the NCSC and serve as approval authority for proposed modifications or waivers to nuclear and NBC contamination survivability criteria and related testing procedures.

2–7. Deputy Chief of Staff for Logistics (DCSLOG)

The DCSLOG will—

a. Ensure that survivability requirements are considered in all configuration changes of materiel.

b. Evaluate the applications of the logistics requirements of the Department of Defense (DOD) 5000 series directives, AR 70–1, and AR 700–127 by the MATDEV in the systems life cycle development.

2–8. Deputy Chief of Staff for Personnel (DCSPER)

The DCSPER will—

a. Coordinate survivability aspects of the Army Soldier Oriented Research and Development (SORD) program and other soldier survivability matters, as appropriate.

b. Develop policy and provide guidance for the assessment of soldier survivability as a domain of MANPRINT.

2–9. Deputy Chief of Staff for Intelligence (DCSINT)

The DCSINT will—

a. Establish threat information policy and guidance per AR 381–11.

b. Approve and validate threat documentation for designated systems per DOD 5200.1–M "Defense Acquisition Systems Protection Program (DRAFT)" and AR 381–11. Coordinate with the Defense Intelligence Agency (DIA) for validation of major programs or programs with DOD oversight.

c. Examine system vulnerabilities identified by other staff elements and agencies to determine if adversaries or potential adversaries possess the capability and intent to exploit our vulnerabilities.

2–10. The Surgeon General

The Surgeon General will Exercise Army staff responsibility for medical research, development, testing and evaluation (RDT&E) and for the Health Hazard Assessment (HHA) Program per AR 40–10.

2–11. Director of Army Safety

The Director of Army Safety will—

a. Develop, coordinate, and disseminate system safety policies defining the interface of safety with survivability of Army personnel and materiel.

b. Ensure the Army automated safety information data base is accessible to CBTDEVs and MATDEVs.

2–12. Chief of Engineers (COE)

The COE will manage survivability efforts for those RDT&E projects within the COE's areas of responsibility and ensure compliance with this regulation.

Section III
Commanders of Major Army Commands

2–13. Commanding General (CG) U.S. Army Materiel Command (AMC)

The CG AMC will—

a. Ensure that assigned systems achieve acceptable mission effectiveness in a hostile environment through compliance with this regulation.

b. Maintain the Army focal point for survivability and provide the capability for integrated technical analysis of the survivability of all Army systems. Coordinate with U.S. Army Space and Strategic Defense Command (USASSDC) for matters pertaining to Ballistic Missile Defense (BMD) survivability. Develop and maintain procedures and standards to support Army materiel survivability.

c. Conduct and maintain survivability research and development, including the identification of survivability technologies and systems analysis expertise necessary to support acquisition of survivable materiel systems and to support Training and Doctrine Command (TRADOC) Battle Laboratories. Coordinate with CG TRADOC on the integration of survivability technology into the enhanced concept based requirements system.

d. Provide technical expertise, advice, and recommendations to the CG TRADOC (and other CBTDEVs) on survivability and vulnerability.

e. Provide technical expertise, advice, and recommendations to the Army Acquisition Executive (AAE) and MATDEVs. Develop survivability strategies for systems being developed by AMC MATDEVs.

f. Provide survivability modeling and simulation support to MATDEVs and CBTDEVs.

g. Ensure that hardened equipment and components, when fielded, receive standardized markings which identify the hardening applied.

h. Ensure the Developmental Independent Evaluation Plan considers survivability issues in the test design process and the Developmental Independent Evaluation Report addresses survivability in support of the milestone decision.

2–14. Commanding General U.S. Army Space and Strategic Defense Command(CG USASSDC)

CG USASSDC will—

a. Ensure that Army space and BMD systems achieve acceptable mission effectiveness in the defense suppression threat environment and other operating environments through compliance with this regulation.

b. Conduct and maintain survivability RDT&E efforts, including the identification of survivability technologies and systems analysis expertise necessary to support Army Space and BMD acquisition and operational programs. Manage and maintain the Army space and BMD survivability data base.

c. Coordinate with the CG TRADOC, other CBTDEVs, and MATDEVs on the integration of survivability technology into Army space and BMD systems, and assist in establishing quantitative survivability criteria for requirements documents for those systems. Provide technical expertise, advice, and recommendations to the CG TRADOC, other CBTDEVs, and MATDEVs on the survivability of Army space and BMD systems. Support the TRADOC Battle Laboratories in the survivability of space and BMD systems.

d. Provide technical advice and recommendations to Army space and BMD MATDEVs. Support development of survivability strategies for Army space and BMD systems and ensure effective technology transfer into the acquisition process.

e. Provide survivability modeling and simulation support to the Army space and BMD system MATDEVs and CBTDEVs. Conduct assessments of Army space and BMD system and element survivability.

f. Coordinate with CG AMC and CG TRADOC to ensure that Army space and BMD survivability capability is focused toward overall Army requirements, eliminates duplication of effort, and facilitates transfer of common survivability technologies between AMC and USASSDC.

2–15. Commanding General U.S. Army Training and Doctrine Command (CG TRADOC)

The CG TRADOC will—

a. Develop strategy, policies, procedures, and training to ensure that survivability requirements are considered early in the concept phase and that these requirements are balanced and integrated with the characteristics of other associated systems.

b. Ensure survivability tactics, techniques, and procedures are included in training programs and doctrinal literature.

c. In coordination with CG, Army Materiel Command (AMC), and CG, U.S. Army Space and Strategic Defense Command (USASSDC), ensure that the survivability technology base is focused on Army requirements.

d. Support AMC and USASSDC in providing survivability modeling and simulation support to MATDEV and CBTDEV.

Section IV
Heads of Other Army Elements

2–16. Director, U.S. Army Nuclear and Chemical Agency (USANCA)

The Director, USANCA will—

a. Establish preliminary nuclear effects and NBC contamination survivability criteria for requirements contained in the MNS which specify nuclear and NBC contamination survivability. (See AR 10–6).

b. Establish final nuclear effects and NBC contamination survivability criteria for requirements contained in ORDs which specify nuclear and NBC contamination survivability.

c. Assist CBTDEVs with the application of nuclear effects and NBC contamination survivability criteria for systems and assist in the evaluation of system survivability shortfalls.

d. Provide a director and two members to the NCSC Secretariat and administrative support to both the NCSC and the NCSC Secretariat (NCSCS).

e. Monitor the Army's nuclear and NBC contamination survivability programs.

2–17. U.S. Army Chemical and Biological Defense Command (USACBDCOM)

The Deputy Chief of Staff for Chemical/Biological (CB) Matters, Army Materiel Command/Commander, Chemical and Biological Defense Command, (as the Army designated Executive for NBC Defense Research, Development and Acquisition (Non-Medical)) will—

a. Function as MATDEV and MDA for NBC defense (excluding medical programs).

b. Support ASA(RDA) in their role of managing facilities essential to NBC defense RDA.

c. Serve as proponent for NBC contamination survivability of Army materiel and as the Army member of the Joint Logistics Commander's Panel on CB Defense.

2–18. Commander, U.S. Operational Test and Evaluation Command(USAOPTEC)

The Commander, USAOPTEC will—

a. Address survivability and vulnerability issues in an operational environment.

b. Designate and fund an independent operational evaluator and tester to prepare T&E plans and reports.

c. Acquire and maintain the resources necessary to conduct operational tests and assessments designed to evaluate survivability and vulnerability.

d. Report operational test results, conclusions, and recommendations to appropriate MDAs.

2–19. The Commander, U.S. Army Medical Command (MEDCOM)

The Commander will—

a. Assess HHA data, establish and issue all medical policies, health standards, exposure limits, or other policies that relate to exposure of personnel to actual or potential health hazards.

b. Maintain coordination with other MATDEVs and test organizations for all matters pertaining to the health and performance of individual soldiers.

c. Provide guidance on medical aspects of systems T&E requirements, including safety criteria and the use of human test subjects and biomedical instrumentation.

d. Issue and maintain interim standards for health hazards and threshold effect levels for NBC contaminants, electromagnetic environments, and directed energy levels for safe exposure of friendly soldiers until long-term standards are developed.

e. Issue and maintain criteria and instrumentation requirements to support assessment of crew casualties during system T&Es.

f. Function as MATDEV and MDA for medical programs related to NBC matters.

Chapter 3
Procedures

3–1. General

CBTDEVs and MATDEVs share responsibility for the survivability of Army materiel and personnel. This regulation, together with AR 602–2, delineates procedures that enable CBTDEVs and MATDEVs to achieve their survivability goals.

3–2. Survivability in the requirements process

Materiel Survivability is addressed in the MNS in terms of the

threat to be countered and the operational threat environment. Soldier survivability includes the above items plus items in the proposed system design that can enhance the soldier's probability of survival. Concepts and alternatives considered in Acquisition Phase 0 will address methods to enhance low observable capabilities, hit avoidance, hit survivability, and system reconstitution in all threat environments. The ORD includes a list of proposed survivability thresholds and objectives, as appropriate. Key parameters represent minimum acceptable levels (thresholds) of survivability.

3–3. Survivability and the threat process

The CBTDEVs and MATDEVs consider the threat from Milestone 0 throughout the entire life cycle of each acquisition program. CBTDEVs and MATDEVs, with support from AMC, USASSDC, or other survivability analysts, define their threat assessment requirements through the respective threat support activity. The intelligence community and appropriate threat support activities provide assessment for operational threat environments and system specific threats and they assist in predicting reactive threats to the MATDEV's system. The intelligence community should be informed of the results of vulnerability analyses, so it can determine if any adversaries possess the capability and intent to exploit our vulnerabilities.

3–4. Survivability analysis

Survivability analysis is a process that starts during Phase 0 and continues throughout the life cycle of the system. CBTDEVs and MATDEVs will integrate survivability analysis over the full spectrum of battlefield threats and insure that synergistic threat effects are adequately addressed. Analysis will include consideration of training; doctrine; tactics, techniques, and procedures; and materiel capabilities.

3–5. Survivability in system design

Training, doctrine, and materiel survivability objectives are refined as the design progresses. MATDEVs will establish a process to balance design specifications, conduct trade-offs, and optimize the system design with the various survivability technologies. Systems are to be assessed as likely to be survivable and meet existing survivability standards or have waivers considered by the appropriate decision forum prior to Milestone II. Process all requests for waivers of nuclear effects and NBC contamination survivability per AR 15–41.

3–6. Survivability testing

The integration of testing focuses on comprehensive tests to ensure the development of survivable soldier-equipment while minimizing testing to reduce cost and time. Modeling and simulation are used as an alternative to physical testing where practical and advisable in order to conserve time and money.

3–7. Survivability evaluation and assessment

Evaluation and assessment plans will address all survivability elements applicable to the program or project, their integration, and required trade-offs within the context of the system's overall required performance and effectiveness. They will also address critical survivability issues, develop measures of performance and effectiveness, and identify data sources.

Chapter 4
Other Survivability Considerations

4–1. Soldier survivability

The survivability of individual soldiers, whether mounted-air (for example, helicopter pilots and crews), mounted-ground (for example, tank or armored vehicle crews), or dismounted (infantry soldiers), must be integrated with the lethality, sustainability, and deployability of the soldier. Survivability aspects of materiel developed for the individual soldier must be integrated with the function to be performed by the soldier. Survivability for the soldier should be developed from a systems approach, rather than having each item developed independently. (See the glossary for the definition of soldier survivability.)

4–2. Force Survivability

Survivability must be considered at the force level as well as at the system level. While individual systems within the force may be highly survivable, others may not be. Survivability of support items, including mission essential resupply and sustainment assets, must be balanced and integrated with the survivability goals of individual systems. Force protection, whereby individual systems provide mutual defense by sharing survivability assets, shall be considered. CBTDEVs must consider force survivability in the concepts development phase.

Appendix A
References

Section I
Required Publications

AR 10–16
U.S. Army Nuclear and Chemical Agency. (Cited in para 2–16.)

AR 15–41
Nuclear and Chemical Survivability Committee. (Cited in para 1–4*i*, 2–1, 2–2 and 3–5.)

AR 25–1
The Army Information Resources Management Program. (Cited in para 1–4.)

AR 25–3
Army Life Cycle Management of Information Systems. (Cited in para1–4 *a*.)

AR 40–10
Health Hazard Assessment Program in Support of the Army Materiel Acquisition Decision Process. (Cited in para 2–10.)

AR 70–1
Army Acquisition Policy. (Cited in paras 1–4, 1–5*h*, 2–1 and 2–7.)

AR 73–1
Test and Evaluation Policy. (Cited in paras 1–4*h* and 2–1.)

AR 381–11
Threat Support to US Army Force, Combat and Materiel Development. (Cited in paras 2–9 and 2–10.)

AR 385–16
System Safety Engineering and Management. (Cited in paras 1–4*e* and 1–4*h*.)

AR 602–2
MANPRINT in the System Acquisition Process. (Cited in para 3–1.)

AR 700–127
Integrated Logistics Support. (Cited in para 2–7.) Army Insensitive Munitions Master Plan. (Cited in para 1–4*h*.)

Section II
Related Publications
A related publication is merely a source of additional information. The user does not have to read it to understand this publication.

AR 5–12
Army Management of the Electromagnetic Spectrum

AR 71–9
Materiel Objectives and Requirements

AR 105–2
Electronic Counter-Countermeasures (ECCM) Electronic Warfare Susceptibility and Vulnerability

AR 380–86
Classification of Chemical Warfare and Chemical and Biological Defense Information

AR 525–22
Electronic Warfare (EW) Policy) (U), (C)

AR 700–86
Life Cycle Management of Clothing and Equipment

AR 702–3
Army Materiel Systems Reliability, Availability, and Maintainability (RAM)

AR 702–4
Procurement Quality Assurance

DA Pam 73–1
Test and Evaluation Guidelines

DA Pam 385–16
System Safety Management Guide

DA Memo
Policy for Low Observable and Counter-Low Observable Programs, 22 December 1992

DOD 5200.1–M
Defense Acquisition Systems Protection Program (DRAFT)

DODI 5000.2
Defense Acquisition Management Policies and Procedures

Section III
Prescribed Forms
There are no entries in this section.

Section IV
Referenced Forms
There are no entries in this section.

Appendix B
Management Control Evaluation Process for Evaluating Survivability of Army Personnel and Materiel

B–1. Function.
To evaluate survivability of Army personnel and materiel.

B–2. Key management controls.
The key controls for this functional area are:

a. Inclusion of survivability considerations by developers in an ORD or MNS.

b. Review by MDAs at milestone decision points.

c. Documentation of the decision by an appropriate review authority (ASARC or similar panel).

B–3. Management control evaluation process.
Management assessment of the key controls identified above does not require the use of a checklist. These key management controls must be evaluated at least once every five years. Certification must be accomplished on DA form 11–2–R "Management Control Evaluation Certification Statement".

Glossary

Section I
Abbreviations

AAE
Army Acquisition Executive

AMC
U.S. Army Materiel Command

AR
Army Regulation

ASA
Assistant Secretary of the Army

ASARC
Army Systems Acquisition Review Council

BMD
Ballistic Missile Defense

CB
Chemical/Biological

CBTDEV
Combat Developer

CG
Commanding General

COEA
Cost and Operational Effectiveness Analyses

COE
Chief of Engineers

C4
Command, Control, Communications and Computers

DA
Department of the Army

DCSINT
Deputy Chief of Staff (Intelligence)

DCSLOG
Deputy Chief of Staff (Logistics)

DCSOPS
Deputy Chief of Staff (Operations and Plans)

DCSPER
Deputy Chief of Staff (Personnel)

DIA
Defense Intelligence Agency

DISC4
Director of Information Systems for Command, Control, Communications and Computers

DOD
Department of Defense

DODI
Department of Defense Instruction

HHA
Health Hazard Assessment

HQDA
Headquarters, Department of the Army

ILSP
Integrated Logistics Support Plan

IMA
Information Mission Area

IPR
In-process Review

MANPRINT
Manpower and Personnel Integration

MATDEV
Materiel Developer

MEDCOM
Medical Command

MNS
Mission Need Statement

MDA
Milestone Decision Authority

MRA
Manpower and Reserve Affairs

NBC
Nuclear, Biological, and Chemical

NCSC
Nuclear and Chemical Survivability Committee

NCSCS
NCSC Secretariat

NDI
Nondevelopmental Item

ORD
Operational Requirements Document

PEO
Program Executive Officer

PM
Program, Project or Product Manager

RDA
Research, Development, and Acquisition

RDT&E
Research, Development, Testing and Evaluation

SMMP
System MANPRINT Management Plan

SORD
Soldier Oriented Research and Development

SSMP
System Safety Management Plan

T&E
Test and Evaluation

TEMP
Test and Evaluation Master Plan

TRADOC
Training and Doctrine Command

USACBDCOM
U.S. Army Chemical and Biological Defense Command

USANCA
U.S. Army Nuclear and Chemical Agency

USASSDC
U.S. Army Space and Strategic Defense Command

USAOPTEC
U.S. Army Operational Test and Evaluation Command

Section II
Terms

Critical System Characteristics
Those design features that determine how well the proposed concept or system will function in its intended environment.

Critical System Functions
Those functions that the system must perform in order to carry out its intended mission.

NBC Contamination
The deposit, adsorption, and/or absorption of residual radioactive material or biological or chemical agents on or by structures, areas, personnel, or objects.

NBC Contamination Survivability
The capability of a system (and its crew) to withstand a Nuclear, Biological, and Chemical contaminated environment and relevant decontamination without losing the ability to accomplish the assigned mission. A Nuclear, Biological, and Chemical contamination survivable system is hardened against Nuclear, Biological, and Chemical contamination and decontaminates; is decontaminable, and is compatible with individual protective equipment.

Nondevelopmental Item
a. Any item of supply that is available in the commercial marketplace;
b. Any previously developed item of supply that is in use by a department or agency of the United States, a State or local government, or foreign government with which the United States has a mutual defense cooperation agreement;
c. Any item of supply described in definition *a* or *b*; above, that requires only minor modification in order to meet the requirements of the procuring agency; or
d. Any item of supply that is currently being produced that does not meet the requirements of definition*ab*, or *c* above, solely because the item is not yet in use or is not

yet available in the commercial marketplace. (DODI 5000.2)

Nuclear Survivability
The capability of a system to withstand initial nuclear weapon effects and still accomplish its mission.

Survivability
The capability of a system to avoid or withstand man-made hostile environments without suffering an abortive impairment of its ability to accomplish its designated mission. (DODI 5000.2)

Soldier Survivability
That characteristic of soldiers that enables them to withstand (or avoid) adverse military action (both friend and foe) or the effects of natural phenomena that would result in the loss of capability to continue effective performance of the prescribed mission. System design considerations for soldier survivability are a combination of, but not limited to, those system characteristics which:

a. reduce fratricide;

b. reduce detectability of the soldier;

c. prevent attack on the soldier, if detected;

d. prevent bodily damage, if attacked;

e. minimize medical injury, if wounded;

f. reduce physical and mental fatigue; and

g. prevent adverse impact on health and performance due to health threats in the natural environment (disease, toxic contaminants, climatic and terrestrial extremes).

Vulnerability
The characteristics of a system that cause it to suffer a definite degradation (loss or reduction of capability to perform the designated mission) as a result of having been subjected to a certain, defined level of effects in an unnatural or man-made hostile environment. Vulnerability is considered a subset of survivability. (DODI 5000.2)

Section III
Special Abbreviations and Terms
There are no entries in this section.

Index

This index is organized alphabetically by topic and by subtopic

Note. The boldface numbers in this index refer to paragraph numbers within a topic. Topics and subtopics are identified by paragraph number.

MANAGEMENT CONTROL EVALUATION CERTIFICATION STATEMENT

For use of this form, see AR 11-2; the proponent agency is ASA(FM).

1. REGULATION NUMBER

2. DATE OF REGULATION

3. ASSESSABLE UNIT

4. FUNCTION

5. METHOD OF EVALUATION *(Check one)*

	a. CHECKLIST		b. ALTERNATIVE METHOD *(Indicate method)*
	APPENDIX *(Enter appropriate letter)*		

6. EVALUATION CONDUCTED BY

a. NAME *(Last, First, MI)*	b. DATE OF EVALUATION

7. REMARKS *(Continue on reverse or use additional sheets of plain paper)*

8. CERTIFICATION

I certify that the key management controls in this function have been evaluated in accordance with provisions of AR 11-2, Management Control . I also certify that corrective action has been initiated to resolve any deficiencies detected. These deficiencies and corrective actions *(if any)* are described above or in attached documentation. This certification statement and any supporting documentation will be retained on file subject to audit/inspection until superseded by a subsequent management control evaluation.

a. ACCESSABLE UNIT MANAGER

(1) TYPED NAME AND TITLE	b. DATE CERTIFIED
(2) SIGNATURE	

USAPA

ELECTRONIC PUBLISHING SYSTEM
TEXT FORMATTER ... Version 2.54

PIN: 072863–000
DATE: 08-20-98
TIME: 17:56:50
PAGES SET: 14

DATA FILE: ar70-75.fil
DOCUMENT: AR 70–75
DOC STATUS: NEW PUBLICATION